UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/737,060
Filing Date: December 16, 2003
Appellant(s): DINGER ET AL.

Steven M. Greenberg
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/28/2009 appealing from the Office action mailed

4/28/2009.

(1) Real Party in Interest

The real party in interest is International Business Machines Corporation.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 2002/0188583 A1	Rukavina et al.	5-2001
US 6,988,138 B1	Alcorn et al.	6-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim rejections under 35 U.S.C. §101

Claims 1-8 and 17-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. With respect to claims 1-8, in order for a claimed process to be considered statutory it must be: (1) tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing. The use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility; the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity; and the transformation must be central to the purpose of the claimed process. A showing of a physical transformation requires an actual change in the state of a physical object involved in the process, such as a method for curing rubber. The pending claims are not drawn to such a process and therefor do not qualify as statutory subject matter under this prong of the test. Therefor the claimed method must be tied to a particular machine or apparatus. With respect to claim 1, the method performs administering learning objects with a learning management system, the claim does not make any implicit or explicit recitations of a particular machine which is critically tied to the performance of the method. Generally the method is directed to authoring and distributing course content, the recitation of "establishing with in a computer system a learning folder", "adding within the computing system one or more learning objects," and "initially limiting access to the learning folder within the computing system" do not impart meaningful limitations on the scope of the claim, as they are related to the

intended field of use of the authoring method. The dependent claims fail to correct this

deficiency.

With respect to claims 17-19, the preambles of the claims recite a learning management system,

such "system" are merely software programs for managing the course contents. The recitation

"learning objects disposed within a computing system," "access the learning objects within the

computing system, and a learning folder management user interface within the computing

system" merely provides intended use of data structure. These components disposed within a

computing system are no more than abstract data structures, and software per se. Such recitation

of "learning objects" and "learning folder management interface" are considered non-statutory

when not claimed in combination with the computer hardware required to realize their

functionalities. None of the limitations positively recite a structure of the system, the recitation of

"computing system" are merely statement of intended use and does not positively recite a

particular structure of the claimed system.

Additionally claim 17 positively recites "a plurality of learners configured to access the learning

objects," positive recitation of a human is directed to non-statutory subject matter.

The dependent claims fail to correct these deficiencies and are rejected for the same reason.

Claim rejections under 35 U.S.C. §102(b)

Claims 1, 3, 4, 9, 11, 12, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by

Rukavina (US 2002/0188583 A1).

Re claims 1, 9, and 17, Rukavina teaches a method of administering learning objects within a

learning management system, comprising the steps of:

establishing within a computer system a learning folder for a particular learner in the learning

management system (LMS) which is separate from an existing selection of learning objects

(Rukavina ¶ 30 and 32, Rukavina teaches in paragraph 30, an e-learning tool includes an

authoring tool, a dynamic delivery tool, and a Learning Management System (LMS). Where the

authoring tool allows subject matter experts, instructional designers, graphic designers, and other

course development team members to work simultaneously on individual learning objects;

Dynamic delivery tool renders the learning objects and custom assembles the learning objects so

each student only receives the objects that is required or desired by the student; and the learning

management system (LMS) provides detailed information about the learner's preference and

progress through assigned courses, and detailed profile of the student's delivery parameters so

that course content can be custom-made for the student by the dynamic delivery tool. The student

(a particular learner) each has its own (custom assembled) learning folder (custom assembly of

learning objects - course content). Rukavina further teaches in paragraph 32 that content editor

allows the developer to easily input externally-provided course content into the system, therefore

the learning objects provided to the user are separate from an existing selection of learning

objects.

adding within the computing system one or more of the learning objects to the learning folder (¶

37, assemble learning objects);

initially limiting access to the learning folder within the computing system to the particular user

(¶ 72, Rukavina teaches that a student may instantaneously receive a course that has been

individually created for him or her, therefore the system initially only provide the course content

to the particular user that is individually created for – limiting access).

Re claims 3, 4, 11, and 12, Rukavina further teaches of modifying the learning folder by adding

or removing one or more additional learning objects to the learning folder (¶ 30, dynamic deliver

tool is capable of "on-the-fly" rendering of learning objects, and is capable of custom assembly

of the objects such that each student receives only those objects that are required for, or desired

by, the student).

103(a)

Claims 2, 5-8, 10, 13-16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Rukavina (US 2002/0188583 A1) in view of Alcorn et al. (US 6,988,138 B1).

Re claims 2, 10, and 19, Rukavina does not explicitly teach of establishing a learning link for the

learning folder, which provides access to the learning folder for one or more additional learners.

Alcorn teaches of giving students access to data files associated with a course (Alcorn, col 3,

lines 64-67), making course files available to a predefined community of students users (Alcorn,

col 5, lines 35-37). It would have been obvious to one of ordinary skill at the time of the

invention to make the student learning folder available to other students in order to share the

course contents for more effective learning. The concept of sharing is well known to one of

ordinary skill in the art (e.g. teacher sharing their lesson plans with other teachers, student

sharing notes and cooperatively study with students in the same class, school establishing classes

of different difficulty level so the students of the same grade level study at the same level, or

identifying learners as members of a particular learning style category).

Re claims 5, 6, 13, 14, and 18, Alcorn further teaches of modifying the learning link by adding or

removing access for one or more of the learners, limiting the access to the person that created the

folder (Alcorn, col 3, lines 64-68: level of access to data).

Re claims 7 and 15, Alcorn further teaches of removing a learning folder from the learning

management system (Alcorn, col 17, line 53: remove button, for removing course folder from the

learning management system).

Re claims 8 and 16, Alcorn further teaches of removing a learning link from the learning

management system (Alcorn, col 3, line 65: level of access).

(10) Response to Argument

<u>Arguments against the Rejections under 35 USC § 101</u>

The appellant has generally described the eligibility of 35 USC § 101 under Bilski on

page 5 of the brief, the appellant asserts on page 6 that claim 1, as recited, provides both an

apparatus tied to the essential claim steps of the method claim and also a transformative effect

from the creation of the folder. For the convenience of the board, the assertion is reproduced

herein as follows:

"Clearly, claim 1 as amended recites both an apparatus tied to the essential claim steps of the method claim (the "computing system") and also a transformative effect evident from the creation of a folder in the computing system for a particular learner, the addition to that folder of one or more learning objects, and the initial limitation of access imposed in the computing system upon a particular learner. More particularly, a transformation of data is apparent in claim 1 that is representative of real world objects--namely course content and particular learners. Thus, under In re Bilski, claim 1 and its dependencies clearly resolve to statutory subject matter."

The standard of rejection being applied against the claims is found in the decisions rendered by the courts which have defined what is not considered patent eligible subject matter. With respect to the method claims (claims 1-8), the court of Appeals of the Federal Circuit in In re Bilski, (545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008)) held that in order for a process claim to be considered statutory the claims must be: (1) tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing. This is the standard applied to the method claims in the rejection above.

The appellant asserts that "transformation of data in claim 1 that is representative of real world objects – namely course content and particular learners", the examiner respectfully disagree, a showing of a physical transformation requires an actual change in the state of a physical object involved in the process, such as a method for curing rubber etc. The appellant's assertion of such real world objects "course contents" are merely data structures and does not represent a physical object, the U.S. Supreme Court holds that physical and chemical process for molding precision synthetic rubber products falls within Section 101 categories of possibly patentable subject matter; such industrial processes are type that have historically been eligible to

receive protection of our patent laws. Diamond, Commissioner of Patents and Trademarks v.

Diehr and Lutton, 209 USPQ 1 (U.S. 1981).

Conclusion that physical and chemical process for molding precision synthetic rubber

products falls within Section 101 categories of possibly patentable subject matter is not **altered**

by fact that in several steps of process mathematical equation and programmed digital computer

are used; however, there are limits to Section 101 and every discovery is not embraced within

statutory terms; excluded from such patent protection are laws of nature, physical phenomena,

and abstract ideas; idea of itself is not patentable; principle in abstract is fundamental truth,

original cause, and motive, and these cannot be patented, as no one can claim in any of them

exclusive right. Diamond, Commissioner of Patents and Trademarks v. Diehr and Lutton, 209

USPQ 1 (U.S. 1981).

The U.S. Supreme Court further holds in Gottschalk v. Benson, 175 USPQ 673, and

Parker v. Flook, 198 USPQ 193, both of which are computer-related, stand for no more than

long-established principles that laws of nature, physical phenomena, and abstract ideas are

excluded from patent protection; Supreme Court's previous decisions regarding patentability of

"algorithms" are necessarily limited to definition of algorithm as a procedure for solving given

type of mathematical problem, and no judgment is passed on whether processes falling outside

this definition, but within significantly broader definition, would be patentable subject

matter. Diamond, Commissioner of Patents and Trademarks v. Diehr and Lutton, 209 USPQ 1

(U.S. 1981).

Assuming arguendo, that transformation of data is sufficient to render a process patent-eligible, however none of the course contents – particularly pointed out by the appellant that is representative of real world objects on page 6 appears to be transformed. The appellant's assertion of transformation of a "particular learners" is moot as a particular learner is not positively claimed in the method - a positive recitation of a human is directed to non-statutory subject matter, and furthermore no particular learners are being transformed in the method.

With respect to reciting an apparatus tied to the essential claim steps of the method claim ("the computing system") the method performs administering learning objects with a learning management system, the claim does not make any explicit recitations of a particular machine which is critically tied to the performance of the method. Generally the method is directed to authoring and distributing course content, the recitation of "establishing with in a computer system a learning folder", "adding within the computing system one or more learning objects," and "initially limiting access to the learning folder within the computing system" do not impart meaningful limitations on the scope of the claim, as they are related to the intended field of use of the authoring method and do not positively recite a tie to a particular machine. Thus the claims have not met the standard found in the decisions rendered by the courts.

With respect to claims 17-19, the appellant asserts that a "learning management system", when interpreted in light of appellant's specification is a machine. The specification in fact does

not support the appellant's assertion. For the convenience of the board, paragraph 21 of

appellant's specification as originally filed is reproduced herein as follows:

> The present invention can be realized in <u>hardware, software, or a combination of hardware and software</u>.
> An implementation of the method and system of the present invention can be realized in a centralized
> fashion in one computer system, or in a distributed fashion where different elements are spread across
> several interconnected computer systems. Any kind of computer system, or other apparatus adapted for
> carrying out the methods described herein, is suited to perform the functions described herein.

The specification does not provide a singular definition that a learning management

system is a machine, additionally one of ordinary skill in the art would understand learning

management system as software ("Learning Management System – is commercial software

product that enables instructors to provide course materials to students with access to a

computer, phone, or handheld device via an internet connection" source:

www.govst.edu/elearning/ under glossary).

The appellant asserts that the recitation of "learning objects disposed within a computing

system," "access the learning objects within the computing system, and a learning folder

management user interface within the computing system" provides a positive recitation of a

computing system, however these limitations merely provides intended use of data structure. As

the claim does not positively recite data structure stored on a computer readable medium (In re

Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Additionally claim 17 positively recites "a plurality of learners configured to access the learning

objects," positive recitation of a human is directed to non-statutory subject matter.

Given the above, the rejection of the claims under 35 USC § 101 are based upon proper

authorities and should be maintained.

Arguments against the rejections under 35 USC § 102(b)

The appellant's sole argument against the rejection is that the prior art fails to teach every

single element as recited in claim 1, particularly (1) establishment within a computing system of

a "learning folder" (2) for a "particular learner" and (3) the "initial limitation" of access to the

learning folder to the particular learners. That none of the foregoing emphasized claim **terms** can

be found in Rukavina.

The appellant asserts that Rukavina does not teach a "learning folder" and offers

paragraph 18 of the specification, which recites "learner A has created a learning folder and has

selected Learning Objects 1 and 2 to be placed in the folder." However, the appellant is using the

term "learning folder" within a computing environment, specifically a learning management

system environment. One of ordinary skill in the art understands that learning folders are merely

computer data structure arrangements, where a learning folder associated with a particular

student are data arrangements gathered and associated with a particular student.

Rukavina teaches in paragraph 30, an e-learning tool includes an authoring tool, a

dynamic delivery tool, and a Learning Management System (LMS). Where the authoring tool

allows subject matter experts, instructional designers, graphic designers, and other course

development team members to work simultaneously on individual learning objects; Dynamic

delivery tool renders the learning objects and custom assembles the learning objects so each

student only receives the objects that is required or desired by the student; and the learning

management system (LMS) provides detailed information about the learner's preference and

progress through assigned courses, and detailed profile of the student's delivery parameters so

that course content can be custom-made for the student by the dynamic delivery tool.

The features of authoring course content, delivery of content to the student based on

learner's preference meets the limitation by creating a "learning folder" for a "particular student"

by associating specific learning objects specifically designed for a "particular student." Thus

Rukavina teaches of establishing a learning folder for a particular learner.

1.   The appellant asserts that Rukavina does not provide an "initial limitation" of the user's

learning folder to the particular learner and offers paragraph 19 of the specification, which

recites "learner A could have allowed all N learners on the system to access the folder, instead of

limiting it to just one other learner." The instant claim only discloses of "initially limiting" and

does not provide for who or how the learning folder is initially limited, the appellant is

attempting to draw in limitation from the specification by stating that it is the student that is

sharing the content, the limitation is not found in the claim. Although the claims are interpreted

in light of the specification, limitations from the specifications are not read into the claims. See

In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

One of ordinary skill in the art understands that the arrangement of data for a particular

learner, or learning folder for a particular learner within a learning management system can be

limited to particular users. In the case of Rukavina, the user's learning folder are specifically

designed and assembled for that particular learner and therefore are only provided to that specific

learner (initial limitation). Thus Rukavina teaches of initial limitation of the course contents to

the particular learner. Thus Rukavina is a proper reference under 35 USC § 102(b), fully

anticipates the claimed invention, and the rejection based upon such should be maintained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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